



HEXAGON TRANSPORTATION CONSULTANTS, INC.

Memorandum



Date: April 24, 2015
To: Akoni Danielson & Matthew Gilliland, David J. Powers & Associates, Inc.
From: Robert Del Rio
Subject: Traffic Study Consistency Review for the Current Valley Fair Mall Expansion



This memo presents an evaluation of consistency for a proposed change in project description with the traffic study and approved Environmental Impact Report (EIR) completed in 2006 for the Valley Fair Mall Expansion in San Jose, California. A traffic study report dated November 27, 2006 was completed and included within the approved EIR for the proposed expansion. The approved project consisted of the expansion of the existing mall to accommodate two new anchor stores and additional retail space and expansion and/or relocation of out parcel buildings. In total the project was to result in the addition of 552,615 square feet (s.f.) of gross leasable retail space. The proposed expansion now consists of the addition of 487,300 sf of gross leasable retail space and a 10-screen movie theater.



The evaluation includes a comparison of trip generation for the current project description against that of the previously approved uses for the expansion project. In addition, changes to the surrounding roadway network and traffic conditions were reviewed to ensure that the original analysis is still valid and that the conclusions and recommendations of the report will be unaffected by the proposed change in project description and current traffic volume data.



Trip Generation Estimate Comparison

The estimated trip generation for the approved mall expansion and new proposed mall expansion plan were reviewed to determine if the new mall expansion plan is consistent with those land uses identified in the approved EIR. The review consisted of a comparison of trip generation estimates for the proposed uses against those identified in the approved EIR. The comparison indicates that the new proposed mall expansion plan will generate fewer peak hour trips than those uses identified in the approved EIR (Table 1).



Intersection Level of Service Analysis

The evaluation includes a re-evaluation of intersection level of service utilizing current volume data at each of the study intersections included as part of the original traffic study. The purpose of the re-evaluation is to determine whether the traffic count data utilized within the completed EIR traffic report are consistent with today's data and whether the conclusions and recommendations of the EIR are still valid.



The level of service analysis was updated utilizing available information contained in the the latest City of San Jose TRAFFIX database and traffic counts collected for other traffic studies recently completed in the area in 2013. The updated level of service analysis results indicate that the addition of project traffic associated with both the approved and the new mall expansion plans would result in a significant impact at the following two intersections (see Table 2):



Stevens Creek Boulevard and Winchester Boulevard
Stevens Creek Boulevard and Monroe Street



The 2006 traffic report concluded that the proposed mall expansion project would impact only the Stevens Creek/Winchester intersection. The intersection of Stevens Creek Boulevard and Winchester Boulevard is a protected intersection and is not subject to the City's level of service policy. However, the addition of a second southbound left-turn lane was included in 2006 as a condition of approval for the project. With the completion of the southbound left-turn lane, the intersection will continue to operate at

LOS E conditions, however the intersection is allowed to operate below the City's LOS standard based on the Protected Intersection Policy.

The Stevens Creek Boulevard and Monroe Street intersection was not shown to have a significant impact in 2006. Based on the current coding of the intersection lane configuration, traffic counts and approved project traffic, the intersection would be significantly impacted by both the approved and the new mall expansion plans. The coding of the northbound right-turn movement, which is dictated by the City, in the 2006 analysis was less stringent than the coding used at the intersection today. As a result, the intersection is projected to operate at worse conditions under existing and projected no project conditions (background) based on the current intersection coding.

Despite no impact being identified in 2006, the approved mall expansion project was required, as a condition of approval, to construct a new direct connector ramp from southbound I-880 to Monroe Street. The new ramp will divert mall traffic away from the Stevens Creek/Monroe Street intersection and reduce delays at the intersection. The improvement of operating conditions at the intersection cannot be reflected in the intersection level of service calculations because of capacity constraints due to the intersection coding.

Table 1
Trip Generation Estimate Comparison

Land Use	Size	Weekday		AM Peak Hour						PM Peak Hour						Saturday Peak Hour													
		Daily Trip Rates	Daily Trips	Pk-Hr Rate	Splits		Trips			Pk-Hr Rate	Splits		Pass-By Reduction	Trips			Pk-Hr Rate	Splits		Pass-By Reduction	Trips								
					In	Out	In	Out	Total		In	Out		Total	In	Out		Total											
Approved Expansion (2006 Study)																													
Retail/Commercial/a/	552,615 s.f.	37.33	20,631	0.79	61%	39%	266	170	437	3.50	48%	52%	25%	696	755	1,451	4.76	52%	48%	25%	1,025	947	1,972						
Proposed Expansion																													
Retail/Commercial/a/	487,300 s.f.	37.33	18,192	0.79	61%	39%	235	150	385	3.50	48%	52%	25%	614	665	1,279	4.76	0.52	48%	25%	904	835	1,739						
Movie Theater/b/	10 screens									13.64	45%	55%	0%	61	75	136	19.97	72%	28%	0%	144	56	200						
Total Proposed Project Trips							235	150	385								676	740	1,416								1,048	891	1,939
Difference in Project Trips (Proposed - Approved from 2006 Study)							-31	-20	-52								-21	-14	-35								23	-56	-33
Notes:																													
/a/ Shopping Center (820) rates were used for proposed retail/commercial use [from ITE 7th edition - same as 2006 study]																													
/b/ Multiplex Movie Theater (445) average rates were used for the movie theater. [ITE 9th edition]																													

Table 2
Intersection Level of Service Comparison

Study Number Intersection		Peak Hour	Count Date	Existing Plus Project												Background Plus Project											
				Existing		Approved Mall Expansion				New Mall Expansion				Background		Approved Mall Expansion				New Mall Expansion							
				Avg. Delay ¹	LOS	Avg. Delay ¹	LOS	Incr. In Crit. Delay	Incr. In Crit. V/C	Avg. Delay ¹	LOS	Incr. In Crit. Delay	Incr. In Crit. V/C	Avg. Delay ¹	LOS	Avg. Delay ¹	LOS	Incr. In Crit. Delay	Incr. In Crit. V/C	Avg. Delay ¹	LOS	Incr. In Crit. Delay	Incr. In Crit. V/C				
1	Stevens Creek Boulevard and Winchester Boulevard*	AM	02/27/13	35.5	D	36.5	D	1.6	0.025	36.4	D	1.3	0.021	36.8	D	37.8	D	1.5	0.025	37.7	D	1.3	0.021				
		PM	09/18/12	50.7	D	65.4	E	29.8	0.170	64.2	E	27.3	0.161	55.0	E	74.9	E	43.0	0.161	73.5	E	40.3	0.153				
		SAT	04/01/06	59.6	E	95.9	F	75.1	0.236	93.7	F	70.7	0.225	59.6	E	95.9	F	75.1	0.236	93.7	F	70.7	0.225				
2	Stevens Creek Boulevard and Santana Row	AM	02/13/13	15.1	B	15.2	B	0.3	0.018	15.2	B	0.3	0.016	14.9	B	15.0	B	0.3	0.018	15.0	B	0.3	0.016				
		PM	02/13/13	29.7	C	31.4	C	1.5	0.075	31.3	C	1.4	0.071	29.2	C	31.1	C	1.7	0.075	31.0	C	1.6	0.071				
		SAT	04/01/06	34.7	C	36.9	D	3.8	0.120	36.7	D	3.6	0.112	34.7	C	36.9	D	3.8	0.120	36.7	D	3.6	0.112				
3	Stevens Creek Boulevard and Redwood Avenue	AM	02/13/13	8.2	A	9.6	A	1.7	0.028	9.4	A	1.5	0.025	8.5	A	9.8	A	1.7	0.028	9.7	A	1.5	0.025				
		PM	02/13/13	22.0	C	28.7	C	5.4	0.110	28.4	C	5.1	0.105	23.1	C	29.7	C	5.4	0.110	29.3	C	5.1	0.105				
		SAT	04/01/06	22.0	C	30.9	C	29.3	0.169	30.3	C	28.4	0.155	22.0	C	30.9	C	29.3	0.169	30.3	C	28.4	0.155				
4	Stevens Creek Boulevard and Monroe Street	AM	02/13/13	28.8	C	29.2	C	0.8	0.032	29.2	C	0.7	0.028	33.8	C	34.1	C	0.8	0.032	34.1	C	0.7	0.028				
		PM	02/13/13	38.6	D	45.2	D	19.5	0.153	44.8	D	17.9	0.141	58.3	E	83.5	F	34.9	0.112	82.0	F	33.2	0.108				
		SAT	04/01/06	36.7	D	81.5	F	113.2	0.318	78.5	E	106.2	0.302	36.7	D	81.5	F	113.2	0.318	78.5	E	106.2	0.302				
5	Stevens Creek Boulevard and I-880 SB off-ramp*	AM	n/a	22.2	C	22.2	C	0.2	0.022	22.2	C	0.2	0.019	22.3	C	22.4	C	0.3	0.022	22.4	C	0.2	0.019				
		PM	n/a	17.6	B	18.3	B	1.8	0.081	18.2	B	1.8	0.079	14.9	B	15.9	B	6.0	0.111	15.9	B	5.9	0.109				
		SAT	04/01/06	22.0	C	23.3	C	1.3	0.082	23.3	C	1.3	0.082	22.0	C	23.3	C	1.3	0.082	23.3	C	1.3	0.082				
6	Bascom Avenue and San Carlos Street	AM	02/14/13	41.9	D	42.0	D	0.2	0.004	42.0	D	0.2	0.004	42.8	D	43.0	D	0.2	0.004	43.0	D	0.2	0.004				
		PM	02/14/13	51.3	D	51.4	D	0.4	0.013	51.4	D	0.4	0.013	52.4	D	52.6	D	0.4	0.013	52.6	D	0.4	0.013				
		SAT	04/08/06	51.6	D	51.8	D	0.5	0.018	51.8	D	0.5	0.018	51.6	D	51.8	D	0.5	0.018	51.8	D	0.5	0.018				
7	Hedding Street and Winchester Boulevard	AM	02/14/13	31.0	C	31.1	C	-0.1	0.012	31.1	C	0.0	0.010	31.5	C	31.7	C	0.0	0.012	31.7	C	0.0	0.010				
		PM	02/14/13	35.9	D	37.3	D	2.8	0.074	37.3	D	2.7	0.072	36.6	D	38.3	D	3.2	0.074	38.2	D	3.1	0.072				
		SAT	04/01/06	34.9	C	34.9	C	0.0	0.025	34.9	C	0.0	0.023	34.9	C	34.9	C	0.0	0.025	34.9	C	0.0	0.023				
8	Forest Street and Winchester Boulevard	AM	02/14/13	15.4	B	17.0	B	2.1	0.025	16.8	B	1.9	0.022	19.5	B	20.2	C	1.3	0.025	20.2	C	1.1	0.022				
		PM	02/14/13	21.5	C	25.1	C	5.5	0.157	24.9	C	5.2	0.149	26.8	C	30.5	C	6.4	0.157	30.3	C	6.0	0.149				
		SAT	04/01/06	17.7	B	23.5	C	7.7	0.216	23.2	C	7.3	0.204	18.4	B	23.6	C	7.0	0.206	23.2	C	7.3	0.204				
9	Winchester Boulevard and Dorcich Street	AM	09/10/10	14.8	B	15.4	B	0.9	0.023	15.3	B	0.8	0.021	15.5	B	15.8	B	0.8	0.024	15.8	B	0.7	0.022				
		PM	09/10/10	23.4	C	25.1	C	2.4	0.086	25.1	C	2.3	0.083	25.2	C	27.2	C	3.0	0.086	27.1	C	2.9	0.083				
		SAT	04/01/06	34.7	C	39.0	D	7.1	0.115	38.7	D	6.6	0.110	34.7	C	39.0	D	7.1	0.115	38.7	D	6.6	0.110				
10	Winchester Boulevard and Olin Avenue	AM	02/13/13	17.6	B	17.3	B	-0.3	0.007	17.3	B	-0.2	0.006	17.8	B	17.5	B	-0.2	0.007	17.5	B	-0.2	0.006				
		PM	02/13/13	21.5	C	20.8	C	-0.8	0.018	20.8	C	-0.8	0.018	20.7	C	20.1	C	-0.6	0.018	20.2	C	-0.6	0.018				
		SAT	04/01/06	20.2	C	19.6	B	-0.5	0.028	19.7	B	-0.5	0.028	20.2	C	19.6	B	-0.5	0.028	19.7	B	-0.5	0.028				
11	Winchester Boulevard and Olsen Drive	AM	02/13/13	14.3	B	14.0	B	-0.1	0.007	14.0	B	-0.1	0.006	21.9	C	21.6	C	-0.3	0.007	21.6	C	-0.3	0.006				
		PM	02/13/13	19.9	B	19.2	B	-0.6	0.020	19.2	B	-0.6	0.020	28.1	C	27.5	C	-0.4	0.020	27.6	C	-0.4	0.020				
		SAT	04/01/06	24.8	C	24.1	C	-0.6	0.027	24.1	C	-0.6	0.027	24.8	C	24.1	C	-0.6	0.027	24.1	C	-0.6	0.027				
12	Winchester Boulevard and I-280 WB on-ramp	AM	05/07/13	21.7	C	21.9	C	0.7	0.009	21.9	C	0.6	0.009	26.3	C	26.5	C	0.7	0.009	26.6	C	0.7	0.009				
		PM	02/13/13	30.0	C	30.7	C	1.3	0.042	30.7	C	1.3	0.041	34.6	C	35.8	D	2.2	0.041	35.8	D	2.1	0.041				
		SAT	04/08/06	20.6	C	22.1	C	2.0	0.055	22.1	C	2.0	0.053	20.6	C	22.1	C	2.0	0.055	22.1	C	2.0	0.053				
13	Winchester Boulevard and Moorpark Avenue	AM	02/13/13	37.8	D	38.1	D	0.3	0.015	38.1	D	0.3	0.013	38.8	D	39.1	D	0.4	0.015	39.1	D	0.3	0.013				
		PM	02/13/13	38.3	D	38.7	D	0.8	0.040	38.7	D	0.8	0.038	38.9	D	39.4	D	0.9	0.040	39.3	D	0.8	0.038				
		SAT	04/08/06	42.3	D	43.1	D	1.0	0.060	43.1	D	1.0	0.059	42.3	D	43.1	D	1.0	0.060	43.1	D	1.0	0.059				
14	I-280 EB off-ramp and Moorpark Avenue*	AM	02/26/13	11.2	B	11.3	B	0.1	0.008	11.3	B	0.1	0.007	11.6	B	11.6	B	0.1	0.008	11.6	B	0.0	0.007				
		PM	09/18/12	13.1	B	13.3	B	0.1	0.020	13.3	B	0.1	0.019	13.4	B	13.5	B	0.1	0.020	13.5	B	0.1	0.019				
		SAT	04/08/06	11.8	B	12.0	B	0.2	0.029	12.0	B	0.2	0.029	11.8	B	12.0	B	0.2	0.029	12.0	B	0.2	0.029				
15	Bascom Avenue and Naglee Avenue	AM	09/28/10	36.2	D	36.5	D	0.3	0.004	36.4	D	0.2	0.003	37.0	D	37.2	D	0.3	0.004	37.2	D	0.2	0.003				
		PM	09/28/10	43.3	D	44.0	D	1.0	0.014	43.9	D	0.9	0.013	44.2	D	44.8	D	1.0	0.014	44.8	D	0.9	0.013				
		SAT	04/01/06	41.6	D	41.4	D	0.0	0.019	41.4	D	0.0	0.019	41.6	D	41.4	D	0.0	0.019	41.4	D	0.0	0.019				
16	Monroe Street and Forest Avenue	AM	02/14/13	17.4	B	17.6	B	0.1	0.003	17.6	B	0.1	0.002	17.8	B	18.1	B	0.2	0.011	18.1	B	0.2	0.010				
		PM	02/14/13	20.2	C	20.8	C	0.6	0.030	20.8	C	0.6	0.029	21.1	C	21.9	C	0.6	0.030	21.9	C	0.6	0.029				
		SAT	04/01/06	18.9	B	21.1	C	4.3	0.104	21.2	C	4.2	0.100	18.9	B	21.1	C	4.3	0.104	21.2	C	4.2	0.100				
17	San Tomas Expressway and Stevens Creek Boulevard*	AM	02/26/13	51.1	D	51.3	D	0.2	0.002	51.3	D	0.2	0.002	53.9	D	54.2	D	0.2	0.002	54.1	D	0.2	0.002				
		PM	09/11/12	68.2	E	70.9	E	5.1	0.009	70.8	E	5.0	0.009	71.9	E	74.7	E	5.5	0.009	74.6	E	5.4	0.009				
		SAT	04/08/06	51.6	D	51.2	D	-0.4	0.013	51.3	D	-0.4	0.013	51.6	D	51.2	D	-0.4	0.013	51.3	D	-0.4	0.013				
18	Saratoga Avenue and Stevens Creek Boulevard*	AM	02/26/13	34.8	C	34.8	C	0.0	0.002	34.8	C	0.0	0.002	35.0	D	35.1	D	0.0	0.002	35.1	D	0.0	0.002				
		PM	09/25/12	38.1	D	38.1	D	-0.1	0.008	38.1	D	0.0	0.008	38.5	D	38.5	D	0.0	0.008	38.5	D	0.0	0.008				
		SAT	04/08/06	40.5	D	40.6	D	0.0	0.012	40.6	D	0.0	0.012	40.5	D	40.6	D	0.0	0.012	40.6	D	0.0	0.012				

¹Whole intersection weighted average control delay expressed in seconds per vehicle.
Bold indicates unacceptable levels of service
* - Denotes CMP intersection

- Denotes project impact